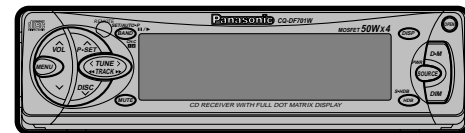


# Panasonic®

松下電器

CD Player/Receiver with Dot Matrix LCD and CD Changer Control  
附點矩陣液晶顯示器和CD換片控制器的CD／收音兩用機

## CQ-DF701W



### Operating Instructions 使用說明書



- Please read these instructions carefully before using this product and save this manual for future use.
- 使用本產品前，請務必閱讀這些說明並將本說明書保管好以備將來之用。

Panasonic welcomes you to our ever growing family of electronic product owners. We know that this product will bring you many hours of enjoyment. Our reputation is built on precise electronic and mechanical engineering, manufactured with carefully selected components and assembled by people who take pride in their work. Once you discover the quality, reliability, and value we have built into this product, you too will be proud to be a member of our family.

## ☐ Use this Product Safely

### When Driving

Keep the volume level low enough to be aware of road and traffic conditions.

### When Car Washing

Do not expose the product, including the speakers and CDs, to water or excessive moisture. This could cause electrical shorts, fire, or other damage.

### When Parked

Parking in direct sunlight can produce very high temperatures inside your car. Give the interior a chance to cool down before switching the unit on.

### Use the Proper Power Supply

This product is designed to operate with a 12 V DC, negative ground battery system.

### Disc Mechanism

Do not insert coins or any small objects. Keep screwdrivers and other metallic objects away from the disc mechanism and disc.

### Use Authorized Servicenters

Do not attempt to disassemble or adjust this precision product. Please refer to the Servicenter list including with this product for service assistance.

### For Installation

This product should be installed in a horizontal position with the front end up at a convenient angle, but not more than 30°.

## ☐ Components

- Operating instructions ..... 1
- Installation hardware.....1 set (⇒ page 28)
- Power connector ..... 1
- Remote control unit ..... 1
- Lithium battery (CR2025)..... 1

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# Features

## Full-dot expressiveness <3D dot matrix display>

You can select an operation quickly because operation items are shown on the display. You can also enjoy variety of actions and direction.

## Audio control functions

- S-HDB (Super High Definition Bass) (⇒ page 14)
- CD changer control (⇒ page 20)

## Anti-theft removable face

You can remove the face plate when you leave your car. (⇒ page 33)

### Before Reading these Instructions

You can operate this unit by pressing buttons on the main unit and the remote control.

- These instructions describe buttons that are concerned with operations as follows.

**Example:** Press **[P. SET ^]** or **[P. SET v]/[^]** or **[v]**.



**[buttons on the main unit]/[remote control]**

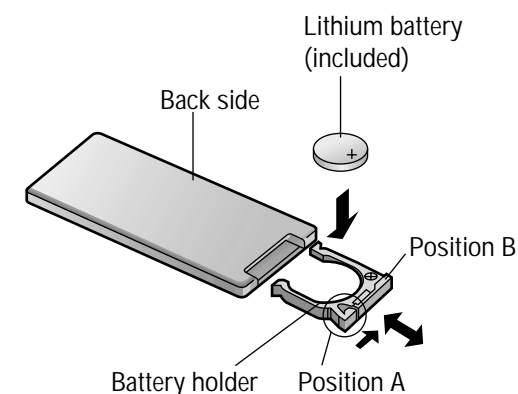
- Some operations can be activated by pressing buttons only on main unit or remote control. Those cases are described in the instructions.

**Example:** Press **[D·M]** on the main unit to select the preset station.

# Remote Control Unit Preparation

## Battery Installation

- 1 Remove the battery holder.  
Pull the holder by the position B while pushing position A in the direction indicated by the arrow.
- 2 Install the battery on the battery holder.  
Set a new battery properly with its (+) side facing up as shown in the figure.
- 3 Insert the battery holder.  
Push in the battery holder back into its original position.



## Battery Notes

Remove and dispose of an old battery immediately.

Battery Information:

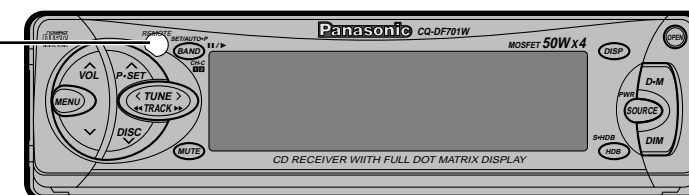
- Battery type: Panasonic lithium battery (CR2025) (included)
- Battery life: Approximately 6 months with normal use (at room temperature)

### Caution:

- Improper use of batteries may cause overheating, an explosion or ignition, resulting in injury or a fire. Battery leakage may damage the unit.

- Do not disassemble or short the battery. Do not throw a battery into a fire.
- Keep batteries away from children to avoid the risk of accidents.
- Be careful to the local disposal rules when you dispose of batteries.

Point the remote control unit at the main unit's sensor (REMOTE).



# General

## 1 Power

Turn the key in the ignition until the accessory indicator lights.

**ON:** Press [SOURCE] (PWR).

**OFF:** Press [SOURCE] (PWR) again for more than 1 second.

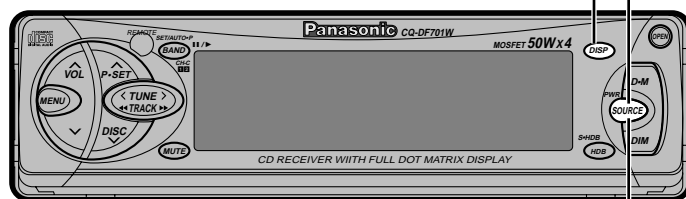


- After turning off the ignition key, a security message is displayed, and the panel removable alarm that reminds you to take the panel is activated.

(When S-LED is set to ON → page 26)

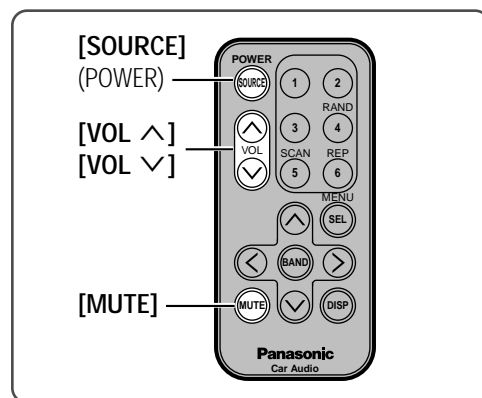
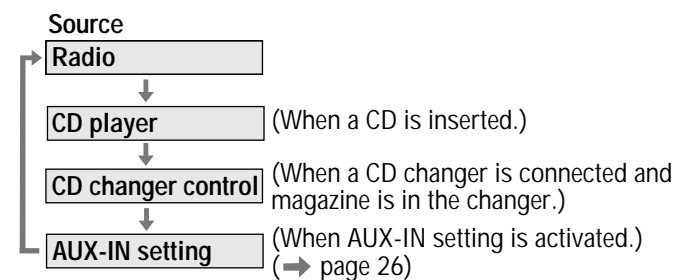
### Note:

- When the power is switched on for the first time, a demonstration message appears on the display. To cancel this display, press [DISP].



## 2 Source

Press [SOURCE] (PWR) to change the source.



## Volume

[^ VOL]: Up

[v VOL]: Down



Setting range: 0 to 40

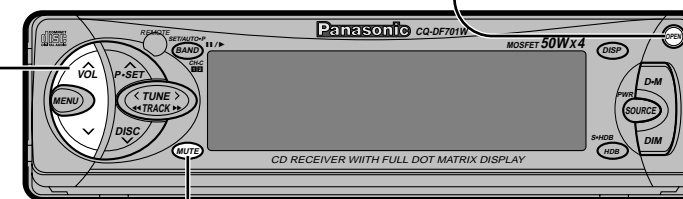
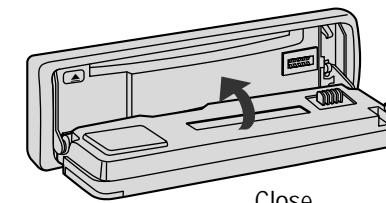
### Note:

- The sound level for each source is stored in memory. (For radio, one volume setting for AM, one volume setting for all FM)

## Open/Close the Front Panel

**OPEN:** Press [OPEN] on the front panel.

**CLOSE:** Raise the panel by hand.



## Mute/Attenuator

**ON:** Press [MUTE].

**OFF:** Press again.

Decreasing volume range depends on setting.

(→ page 26)



: No sound.



: Decrease the volume to 1/10.

### Cautions:

- To avoid damaging the front panel, do not push it down or place objects on it while it is open.
- Do not pinch your finger or hand in the front panel.
- Do not insert foreign matter into the disc slot.

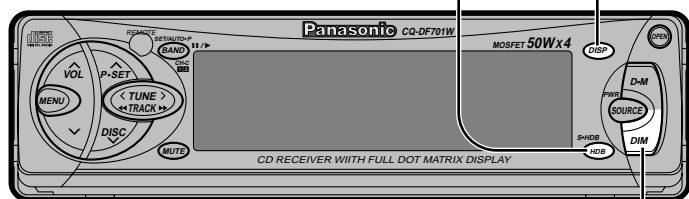
# General (Continued)

## S-HDB (Super High Definition Bass)

Especially for rock music, the bass-sound will be more powerful.

Press [S-HDB] on the main unit to change the Super High Definition Bass on.

- S-HDB OFF** : Default
- S-HDB BOOM** : The bass sounds of the speakers are strongly emphasized.
- S-HDB TIGHT** : The bass sounds of the speakers are moderately emphasized. (The sounds of the subwoofer can be heard clearly.)



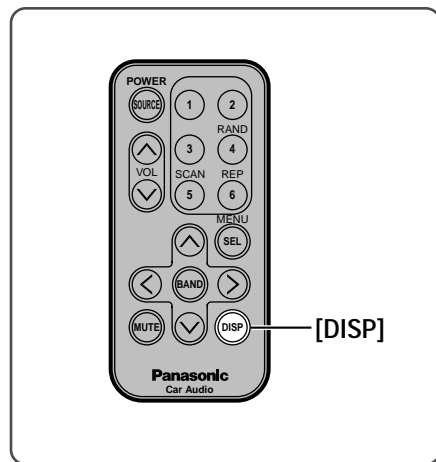
**Note:**

- When S-HDB is on, the indicator (S-HDB BOOM or TIGHT) is shown on the audio indicator display. (⇒ page 15)

## Dimmer (Display Brightness Setting Range)

Press [DIM] on the main unit to change the dimmer level.

- DIMMER 3** : Bright Default
- DIMMER 2** : Medium
- DIMMER 1** : Dark



## Display Change

### When Power is ON

Press [DISP].



Mode display



Mode and spectrum analyzer display



Spectrum analyzer display

If you press a button, the mode and spectrum analyzer display appear for 5 seconds.



Mode and clock display



Display and light off (when it is turned on.)

If you press a button, the light is turned on, the mode display appears for 5 seconds, and the light is turned off again.

Press and hold [DISP] for more than 2 seconds.

- The audio indicator is displayed for 15 seconds and returns to the previous display.
- When the indicator lights, the audio function (S-HDB/SUB-W) is now activated.



Press [DISP] again to cancel.

### When Power is OFF

Press [DISP].



Clock display



Display and light off

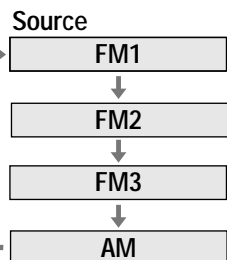
**Notes:**

- Set the spectrum analyzer pattern in a separate procedure. (⇒ page 24)
- **ADJUST** : Displays before adjusting the clock. (⇒ page 24)

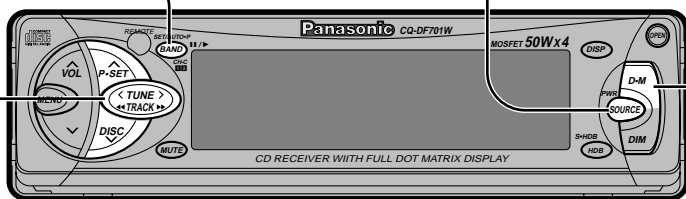
# Radio

**1 Radio Mode**  
Press [SOURCE] to change to the radio mode.

**2 Band**  
Press [BAND] to change the band.



**3 Tuning**  
[TUNE >]/[>]: Up  
[TUNE <]/[<]: Down  
Press and hold [TUNE >] or [TUNE <]/[>] or [<] for more than 0.5 seconds, then release. Seeking will start.



**Direct Memory**  
Your favorite radio station can be memorized in [D·M] on the main unit.  
Default: FM 87.50 MHz

- Memorize**
- 1 Select a band and frequency (steps 1, 2 and 3).
  - 2 Press and hold [D·M] for more than 2 seconds. Frequency blinks once and is saved in the memory.

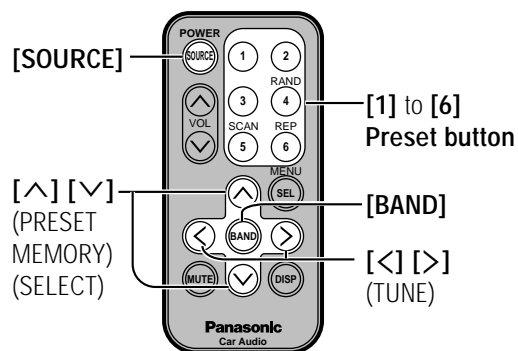
**Note:**  
• The new station is overwritten on existing saved stations after following this procedure.

**Recalling the Direct Memory**



Press [D·M] again to cancel and return to the previous source.

**Note:**  
• You can recall the direct memory when the power is off.



## One-Touch Selection of a Preset Station

Up to 6 stations each can be saved in the FM1, FM2, FM3 and AM preset station memories.

### Manual Preset Memory

Manually save a station in the preset memory

- 1 Select a band and frequency (steps 1, 2 and 3 on the previous page).
  - 2 Press and hold [P. SET ^] or [P. SET v]/[^] or [v] for more than 2 seconds until the preset number blinks.
  - 3 Press [P. SET ^] or [P. SET v]/[^] or [v] to select a preset number.
  - 4 Press and hold [P. SET ^] or [P. SET v]/[^] or [v] for more than 2 seconds to memorize.
    - The display blinks once, and a receiving station is saved in the memory.
- 
- Preset number

**Note:**  
• Frequency setting can be performed even after selecting a preset number.

**Entering Numbers Directly from the Remote Control**

- 1 Select a band and frequency (step 1, 2 and 3 on the previous page).
- 2 Press and hold [1] to [6] on the remote control for more than 2 seconds to memorize.

### Auto Preset Memory (AUTO·P)

Automatically save strong stations in the preset memory

- 1 Select a band (steps 1 and 2 on the previous page).
- 2 Press and hold [BAND] (AUTO-P) for more than 2 seconds.
  - The 6 strongest available stations will be automatically saved in the memory under preset number 1 to 6.
  - Once set, the preset stations are sequentially scanned for 5 seconds each.
  - Press [P. SET ^] or [P. SET v]/[^] or [v] for the broadcast you want to listen to. (Press [1] to [6] on the remote control.)

**Note:**  
• New stations are overwritten on existing saved stations after following this procedure.

### Preset Station Calling

- 1 Select a band (steps 1 and 2 on the previous page).
- 2 Press [P. SET ^] or [P. SET v]/[^] or [v] to select the preset number for tuning in the preset station.

**Entering Numbers Directly from the Remote Control**

Press [1] to [6] on the remote control.

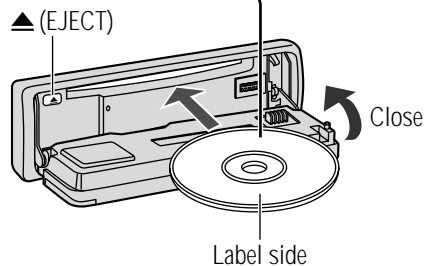
# CD Player

## Disc Insert and Playback

- 1 Open the front panel.**  
Press [OPEN] on the front panel.



- 2 Insert the disc.**  
Close the front panel manually.  
Playback will start automatically.



### When CD is in the player

Press [SOURCE] to change to CD player mode.

#### Notes:

- Do not insert a disc when this indicator lights.
- Loading a CD when the power is off allows the power to be turned on.
- Ejecting the CD when the unit is in the CD player mode allows the power to be turned off.

### CD player mode display



- Lights when the disc is loaded.
- Blinks when the disc is played.

## Stop and Disc Eject

Press [▲] (EJECT) to stop CD play and eject the disc.

## Listening to a CD

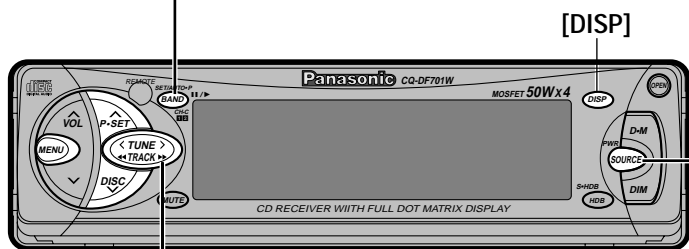
### Pause

Press [BAND] (||/▶) during CD playing.  
Press [BAND] (||/▶) again to cancel.

**PAUSE**

### CD Player Mode

Press [SOURCE] to change to CD player mode and playback starts.



### Track Selection

- [TRACK ▶▶]/[>]: Next track.
- [TRACK ◀◀]/[<]: Beginning of the current track.  
Previous track (Press twice.)

### Track Search

- Press and hold.
- [TRACK ▶▶]/[>]: Fast forward
- [TRACK ◀◀]/[<]: Fast backward
- Release to resume the regular play.

## Menu Setting on CD Player Mode

- Press [MENU]/[SEL] (MENU) during CD playing.
- Press [P. SET ▲] or [P. SET ▼]/[▲] or [▼] to select a submenu.
- Press [BAND] (SET) to change the setting.

### CD player menu display



#### Notes:

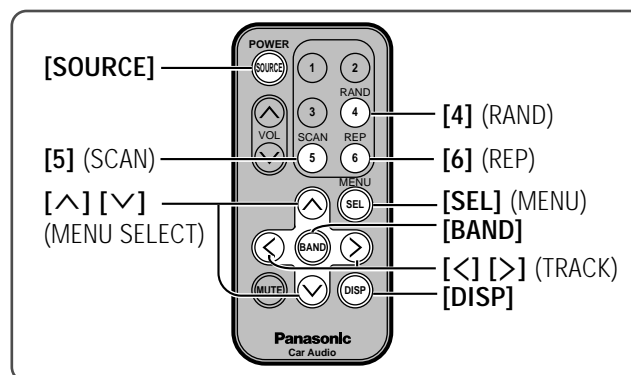
- Operations except setting should be performed after returning to the mode display.
- The display returns to the previous one with no operation for 15 seconds after changing to the menu display.
- Press [DISP] to return to the regular mode.

### Play Setting

<b>Random Play</b>	Select RAND	ON : All the available tracks plays in a random sequence. OFF : Cancel
<b>Scan Play</b>	Select SCAN	ON : The first 10 seconds of each track plays in sequence. OFF : Cancel
<b>Repeat Play</b>	Select REP	ON : Repeat the current track. OFF : Cancel

### Direct setting on the remote control when the menu is not displayed:

<b>Random Play</b>	Press [4] (RAND). Press again to cancel.
<b>Scan Play</b>	Press [5] (SCAN). Press again to cancel.
<b>Repeat Play</b>	Press [6] (REP). Press again to cancel.



#### Cautions:

- Only 12 cm CD is available for this unit.
- To avoid damaging the front panel, do not push it down or place objects on it while it is open.
- Do not use irregularly shaped CDs (heart-shaped, octagon, etc.).
- Do not pinch your finger or hand in the front panel. Do not insert foreign matter into the disc slot.

# CD Changer

CD changer functions are designed for optional Panasonic CD changer unit.

## Preparation:

- Connect the CD changer, and load a magazine (disc).

## Notes:

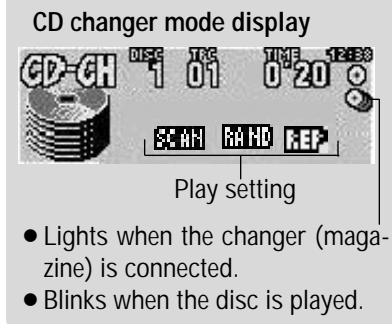
- Loading a magazine when the power is off allows the power to be turned on.
- Ejecting the magazine when the unit is in the CD changer mode allows the power to be turned off.
- Pausing does not function in the CD changer mode.

## 1 CD Changer Mode

Press [SOURCE] to change to CD changer mode and playback starts.

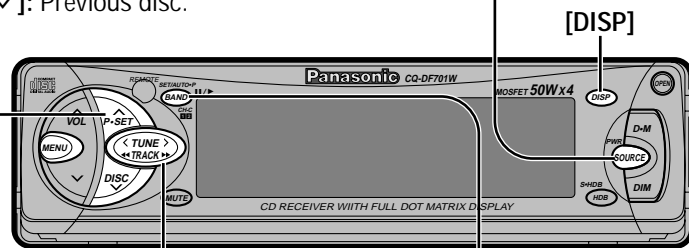
### Note:

- **NO DISC**: Load a magazine with CDs.



## 2 Disc Selection

[DISC ^]/[^]: Next disc.  
[DISC v]/[v]: Previous disc.



## Track Selection

[TRACK ►►]/[>]: Next track.  
[TRACK ◀◀]/[<]: Beginning of the current track.  
Previous track (Press twice.)

## Track Search

Press and hold.  
[TRACK ►►]/[>]: Fast forward  
[TRACK ◀◀]/[<]: Fast backward  
Release to resume the regular play.

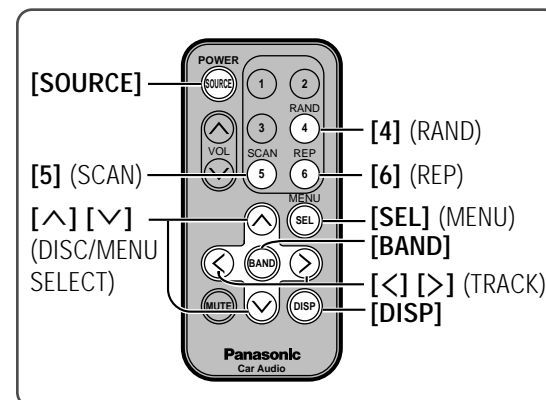
### Caution:

- Do not use irregularly shaped CDs (heart-shaped, octagon, etc.).

## Change the CD Changer Unit

Press [BAND] (CH-C **1**/**2**) to select the CD changer 1 or 2 mode.

CD-CH1: CD changer 1 mode  
CD-CH2: CD changer 2 mode



## Menu Setting on CD Changer Mode

- 1 Press [MENU]/[SEL] (MENU) during CD changer playing.
- 2 Press [P. SET ^] or [P. SET v]/[^] or [v] to select a submenu.
- 3 Press [BAND] (SET) to change the setting.



### Notes:

- Operations except setting should be performed after returning to the mode display.
- The display returns to the previous one with no operation for 15 seconds after changing to the menu display.
- Press [DISP] to return to the regular mode.

### Play Setting

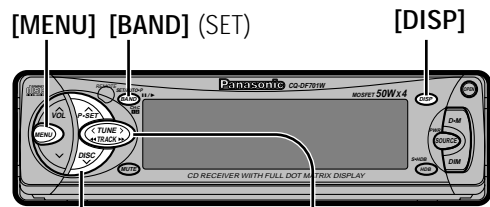
Random Play	Select RAND	ON: All the available tracks on all discs in the magazine plays in a random sequence. OFF: Cancel
	Select D-RAND	ON: All the available tracks on the current disc plays in a random sequence. OFF: Cancel
Scan Play	Select SCAN	ON: The first 10 seconds of each track on the discs plays in sequence. OFF: Cancel
	Select D-SCAN	ON: The first 10 seconds of the first track of all the discs in the magazine plays in sequence. OFF: Cancel
Repeat Play	Select REP	ON: Repeat the current track. OFF: Cancel
	Select D-REP	ON: Repeat the current disc. OFF: Cancel

### Direct setting on the remote control when the menu is not displayed:

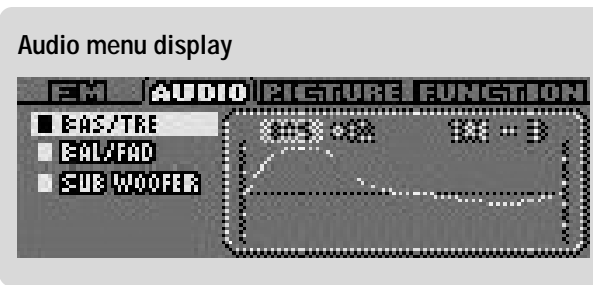
Random Play	Press [4] (RAND). Press again to cancel.
Disc Random Play	Press and hold [4] (RAND). Press and hold again to cancel.
Scan Play	Press [5] (SCAN). Press again to cancel.
Disc Scan Play	Press and hold [5] (SCAN). Press and hold again to cancel.
Repeat Play	Press [6] (REP). Press again to cancel.
Disc Repeat Play	Press and hold [6] (REP). Press and hold again to cancel.



# Audio Settings

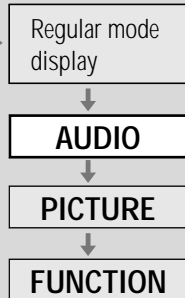


[P.SET ^] [P.SET v] [TUNE <] [TUNE >]  
(MENU SELECT) (BAS/TRE/BAL/FAD/LEVEL/LPF)



## 1 Menu

Press [MENU]/[SEL] (MENU) to select "AUDIO" on the menu display.



## 2 Submenu

Press [P. SET ^] or [P. SET v]/[^] or [v] to select

**BAS/TRE**

Press [BAND] (SET) to set.

Press [P. SET ^] or [P. SET v]/[^] or [v] to select

**BAL/FAD**

Press [BAND] (SET) to set.

Press [P. SET ^] or [P. SET v]/[^] or [v] to select

**SUB WOOFER**

Press [BAND] (SET) to set.

### Bass and Treble

You can adjust the bass and treble sound.  
Default: BAS (Bass) 0 dB  
TRE (Treble) 0 dB  
Setting range: -12 dB to +12 dB by 3 dB step

### Balance and Fader

You can adjust the sound balance among the front, rear, right and left speakers.  
Default: BAL (Balance) Center  
FAD (Fader) Center  
Setting range: 15 levels each

### Subwoofer Level

When the subwoofer is activated, you can change the subwoofer volume level.  
Default: 4  
Setting range: 0 (MUTE) to 8

### Cut-off Frequency Control

The maximum lower frequency level can be adjusted to match your subwoofer and the acoustics inside your car.  
Default: 120 Hz  
Setting range: 120 Hz/80 Hz

## 3 Setting

Press [TUNE >] or [TUNE <]/[>] or [<] to select BAS or TRE.

<b>BAS (Bass)</b>	<b>TRE (Treble)</b>
[P. SET ^]/[^]: Increase the bass.	[P. SET ^]/[^]: Increases the treble.
[P. SET v]/[v]: Decreases the bass.	[P. SET v]/[v]: Decreases the treble.
Press [BAND] (SET) to set.	

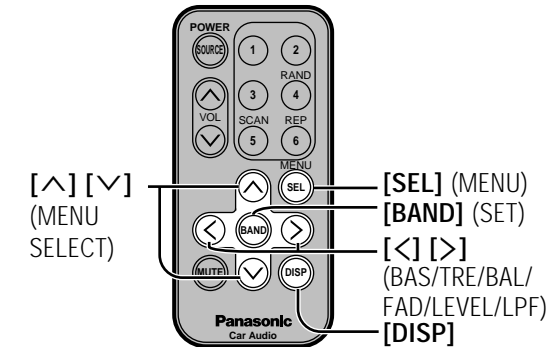
<b>BAL (Balance)</b>	<b>FAD (Fader)</b>
[TUNE >]/[>]: Right enhanced.	[P. SET ^]/[^]: Front enhanced.
[TUNE <]/[<]: Left enhanced.	[P. SET v]/[v]: Rear enhanced.
Press [BAND] (SET) to set.	

Press [P. SET ^] or [P. SET v]/[^] or [v] to select LEVEL or LPF.

<b>LEVEL</b>
[TUNE >]/[>]: Increase the level.
[TUNE <]/[<]: Decrease the level.
Press [BAND] (SET) to set.
<b>LPF</b>
Press [TUNE >] or [TUNE <]/[>] or [<] to select 120 Hz or 80 Hz.
Press [BAND] (SET) to set.

### Notes:

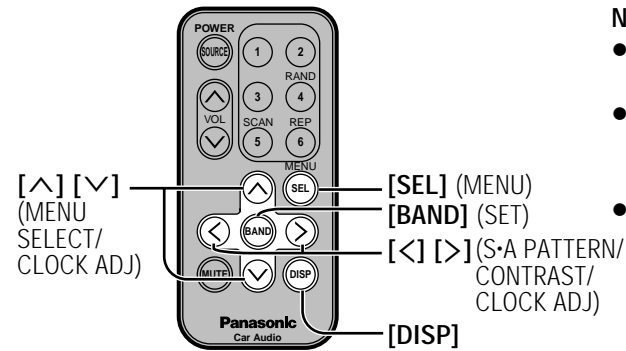
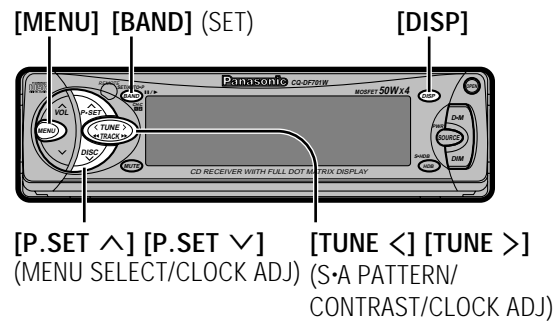
- Operations except setting should be performed after returning to the mode display.
- The display returns to the previous one with no operation for 15 seconds after changing to the menu display.
- Press [DISP] to return to the regular mode.



### Note:

- When subwoofer level is set 0, the indicator (SUB·W) is not shown on the audio indicator display. (→ page 15)

# Picture (Display) Settings



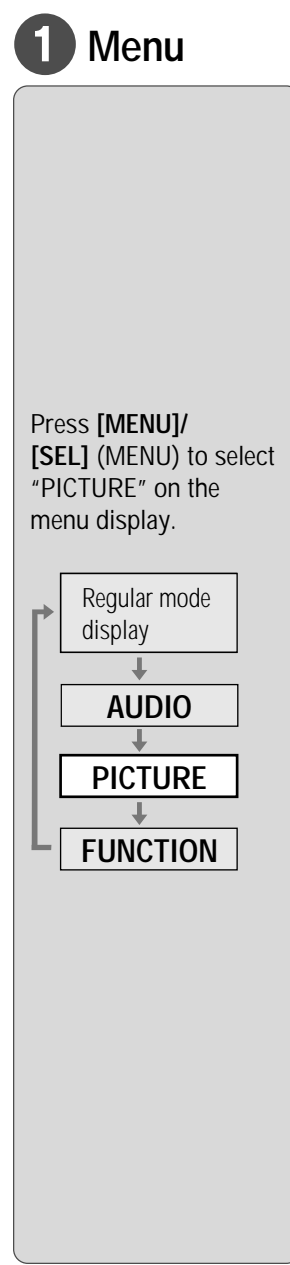
- Notes:
- Operations except setting should be performed after returning to the mode display.
  - The display returns to the previous one with no operation for 15 seconds after changing to the menu display.
  - Press [DISP] to return to the regular mode.

**Spectrum Analyzer (S·A) Display Pattern**  
Default: Pattern A  
Variety: 6 types

**Contrast**  
Allows you to adjust the display contrasts for better viewing.  
Default: Level 3  
Setting range: Level 1 to level 5

**Clock on the Mode Display**  
Default: ON  
("---:--" will appear before adjusting the clock.)

**Clock Adjustment**  
(12 hour system)  
Default: Not adjusted.



**2 Submenu**

Press [P. SET ^] or [P. SET v]/[^] or [v] to select

**S·A PATTERN**

Press [BAND] (SET) to set.

Press [P. SET ^] or [P. SET v]/[^] or [v] to select

**CONTRAST**

Press [BAND] (SET) to set.

Press [P. SET ^] or [P. SET v]/[^] or [v] to select

**CLOCK-OFF** → **ON** : Clock display ON

**CLOCK-ON** → **OFF** : Clock display OFF

Press [P. SET ^] or [P. SET v]/[^] or [v] to select

**CLOCK ADJ**

Press [BAND] (SET) to set.

**3 Setting**

Press [TUNE >] or [TUNE <]/[>] or [<] to select the pattern.

<b>A</b> : Display showing a cube that continues to change	<b>D</b> : Display showing a bird flapping its wings
<b>B</b> : Display showing a globe that continues to change	<b>E</b> : Display showing the image of a circuit
<b>C</b> : Display showing a flower or doll pattern	<b>STD</b> : Standard spectrum analyzer display (9 bands)

Press [BAND] (SET) to set.

**Note:**

- Change the display to show the spectrum analyzer display. (→ page 15)

[TUNE >]/[>]: level up

[TUNE <]/[<]: level down

Press [BAND] (SET) to set.

Press [BAND] (SET) to select

**Hour/Minute Switch**

**Hour/Minute Adjustment**

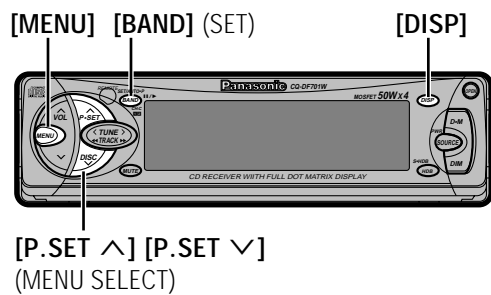
[TUNE <]/[<]: The hour display high lights. [P. SET ^]/[^]: Put forward hour/minute.

[TUNE >]/[>]: The minutes display high lights. [P. SET v]/[v]: Put back hour/minute.

Press [BAND] (SET) to set.

Press [BAND] (SET) to set.

# User Settings



## Mute/Attenuator

You can select how much to lower the volume when [MUTE] is pressed.

Default: MUTE

## Excluding AUX-IN from Source Selection

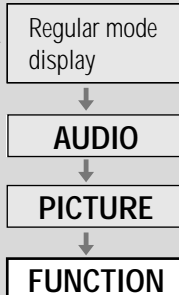
Default: ON

## Security Function

Default: ON

### 1 Menu

Press [MENU]/[SEL] (MENU) to select "FUNCTION" on the menu display.



### 2 Submenu

Press [P. SET ^] or [P. SET v]/[^] or [v] to select

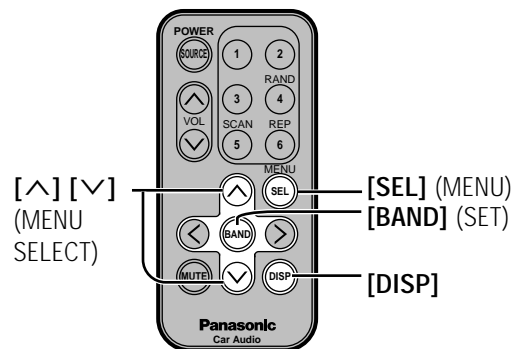
**MUTE KEY**

Press [P. SET ^] or [P. SET v]/[^] or [v] to select

**AUX-IN**

Press [P. SET ^] or [P. SET v]/[^] or [v] to select

**S-LED**



### Notes:

- Operations except setting should be performed after returning to the mode display.
- The display returns to the previous one with no operation for 15 seconds after changing to the menu display.
- Press [DISP] to return to the regular mode.

### 3 Setting

Press [BAND] (SET) to switch between MUTE (mute) or ATT (attenuator) in turn.

- MUTE : No sound.
- ATT : Decrease the volume to 1/10.

Press [BAND] (SET) to activate the function or inactivate it in turn.

- ON : External input (AUX-IN) is selectable as a source.
- OFF : External input (AUX-IN) is not selectable as a source.

With AUX-IN set to OFF, AUX-IN will not be selected when [SOURCE] is pressed. (⇒ page 12)

Press [BAND] (SET) to activate the function or inactivate it in turn.

- ON : Security function is active.
- OFF : Security function is non-active.

#### Security Function

- When the key in the ignition is turned OFF.
- Security message will be active.
  - The panel removable alarm will be active.
- When the removable face plate is removed.
- The security indicator blinks. (⇒ page 33)

#### Security message display

**PLEASE REMOVE PANEL**

# Installation Guide



This installation information is designed for experienced installers and is not intended for non-technical individuals. It does not contain warnings or cautions of potential dangers involved in attempting to install this product.

Any attempt to install this product in a motor car by anyone other than qualified installer could cause damage to the electrical system and could result in serious personal injury or death.

## Installation Hardware

No.	Item	Diagram	Q'ty
①	Mounting collar		1
②	Hex. nut (5 mmφ)		1
③	Rear support strap		1
④	Tapping screw (5 mmφ × 16 mm)		1
⑤	Mounting bolt (5 mmφ)		1
⑥	Power connector		1
⑦	Removable face plate case		1
⑧	Trim plate		1

## Overview

This product should be installed by a professional. However, if you plan to install this product yourself, your first step is to decide where to install it. The instructions in these pages will guide you through the remaining steps:

(Please refer to the "WARNING" statement above.)

- Identify and label the car wires.
- Connect the car wires to the wires of the power connector.
- Install the unit in the dashboard.
- Check the operation of the unit.

If you encounter problems, please consult your nearest professional installer.

### Caution:

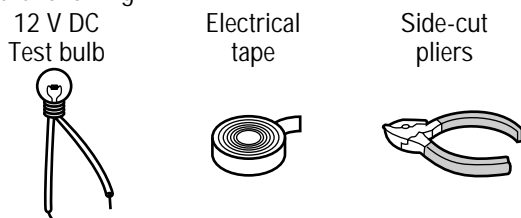
- This unit operates with a 12 V DC negative ground auto battery system only. Do not attempt to use it in any other system. Doing so could cause serious damage.

Before you begin installation, look for the items which are packed with your unit.

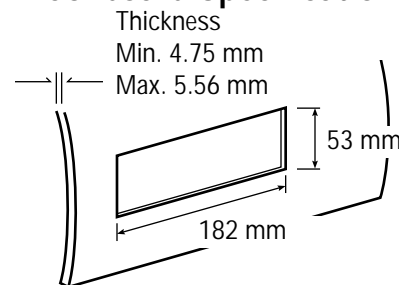
- **Panasonic Servicenter for Service Directory** ...Keep for future reference in case the product needs servicing.
- **Installation Hardware**...Needed for in-dash installation.

## Required Tools

You'll need a screwdriver, a 1.5 V AA battery, and the following:



## Dashboard Specifications



## Identify All Leads

The first step in installation is to identify all the car wires you'll use when hooking up your sound system.

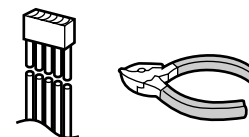
As you identify each wire, we suggest that you label it using masking tape and a permanent marker. This will help avoid confusion when making connections later.

### Note:

- Do not connect the power connector to the stereo unit until you have made all connections. If there are no plastic caps on the stereo hooking wires, insulate all exposed leads with electrical tape until you are ready to use them. Identify the leads in the following order.

### Power Lead

If your car has a radio or is pre-wired for one: Cut the connector wires one at a time from the plug (leaving the leads as long as possible) so that you can work with individual leads.



Turn the ignition on to the accessory position, and ground one lead of the test bulb to the chassis.

Touch the other lead of the test bulb to each of the exposed wires from the cut radio connector plug. Touch one wire at a time until you find the outlet that causes the test bulb to light.

Now turn the ignition off and then on. If the bulb also turns off and on, that outlet is the car power lead.

If your car is not wired for an audio unit:

Go to the fuse block and find the fuse port for radio (RADIO), accessory (ACC), or ignition (IGN).

### Battery Lead

If your stereo unit has a yellow lead, you will need to locate the car's battery lead. Otherwise you may ignore this procedure. (The yellow battery lead provides continuous power to maintain a clock, memory storage, or other function.)

If your car has a radio or is pre-wired for one: With the ignition and headlights off, identify the car battery lead by grounding one lead of the test bulb to the chassis and checking the remaining exposed wires from the cut radio connector plug.

If your car is not wired for an audio unit:

Go to the fuse block and find the fuse port for the battery, usually marked BAT.

### Speakers

Identify the car speaker leads. There are two leads for each speaker which are usually color coded. A handy way to identify the speaker leads and the speaker they are connected with is to test the leads using a 1.5 V AA battery as follows.

Hold one lead against one pole of the battery and stroke the other lead across the other pole. You will hear a scraping sound in one of the speakers if you are holding a speaker lead.

If not, keep testing different lead combinations until you have located all the speaker leads. When you label them, include the speaker location for each.

### Antenna Motor

If your car is equipped with an automatic power antenna, identify the car motor antenna lead by connecting one bulb tester lead to the car battery lead and touching the remaining exposed wires from the cut radio connector plug one at a time. You will hear the antenna motor activate when you touch the correct wire.

### Antenna

The antenna lead is a thick, black wire with a metal plug at the end.

## Connect All Leads

Now that you have identified all the wires in the car, you are ready to begin connecting them to the stereo unit wires. The wiring diagram (⇒ pages 34–35) shows the proper connections and color coding of the leads.

We strongly recommend that you test the unit before making a final installation.

You can set the unit on the floor and make temporary connections to test the unit. Use electrical tape to cover all exposed wires.

### Important:

- Connect the red power lead last, after you have made and insulated all other connections.

### Ground

Connect the black ground lead of the power connector to the metal car chassis.

# Installation Guide (Continued)

## Speakers

Connect the speaker wires. See the wiring diagram (→ pages 34–35) for the proper hookups. Follow the diagram carefully to avoid damaging the speakers and the stereo unit.

The speakers used must be able to handle more than 50 W of audio power. If using an optional audio amplifier, the speakers should be able to handle the maximum amplifier output power. Speakers with low input ratings can be damaged. Speaker impedance should measure 4–8 Ω, which is typically marked on most speakers. Lower or higher impedance speakers will affect output and can cause both speaker and stereo unit damage.

## Motor Antenna

Connect the car motor antenna lead to the dark blue motor antenna relay control lead.

## Battery

Connect the yellow battery lead to the correct radio wire or to the battery fuse port on the fuse block.

## Antenna

Connect the antenna by plugging the antenna lead into the antenna receptacle.

## Equipment

Connect any optional equipment such as an amplifier, according to the instructions furnished with the equipment. Leave about 30 cm of distance between the speaker leads/amplifier unit and the antenna/antenna extension cord. Read the operating and installation instructions of any equipment you will connect to this unit.

## Power

Connect the red power lead to the correct car radio wire or to the appropriate fuse port on the fuse block.

If the stereo unit functions properly with all these connections made, disconnect the wires and proceed to the final installation.

## Final Installation

### Lead Connections

Connect all wires, making sure that each connection is insulated and secure. Bundle all loose wires and fasten them with tape so they will not fall down later. Now insert the stereo unit into the mounting collar.

Congratulations! After making a few final checks, you're ready to enjoy your new auto stereo system.

## Final Checks

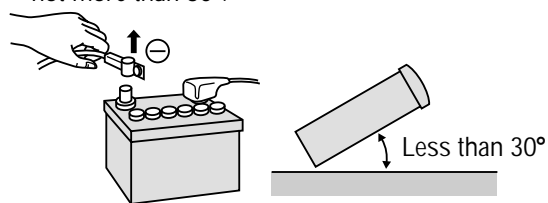
1. Make sure that all wires are properly connected and insulated.
2. Make sure that the stereo unit is securely held in the mounting collar.
3. Turn on the ignition to check the unit for proper operation.

If you have difficulties, consult your nearest authorized professional installer for assistance.

## Preparation

- We strongly recommend that you wear gloves for installation work to protect yourself from injuries.
- When bending the mounting tabs of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.

- Disconnect the cable from the negative ⊖ battery terminal (see caution below).
- Unit should be installed in a horizontal position with the front end up at a convenient angle, but not more than 30°.

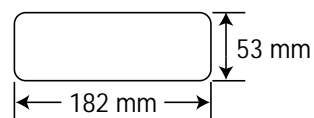


### Caution:

- Do not disconnect the battery terminals of a car with a trip or navigational computer since all user settings stored in memory will be lost. Instead take extra care with installing the unit to prevent shorts.

## Dashboard Installation

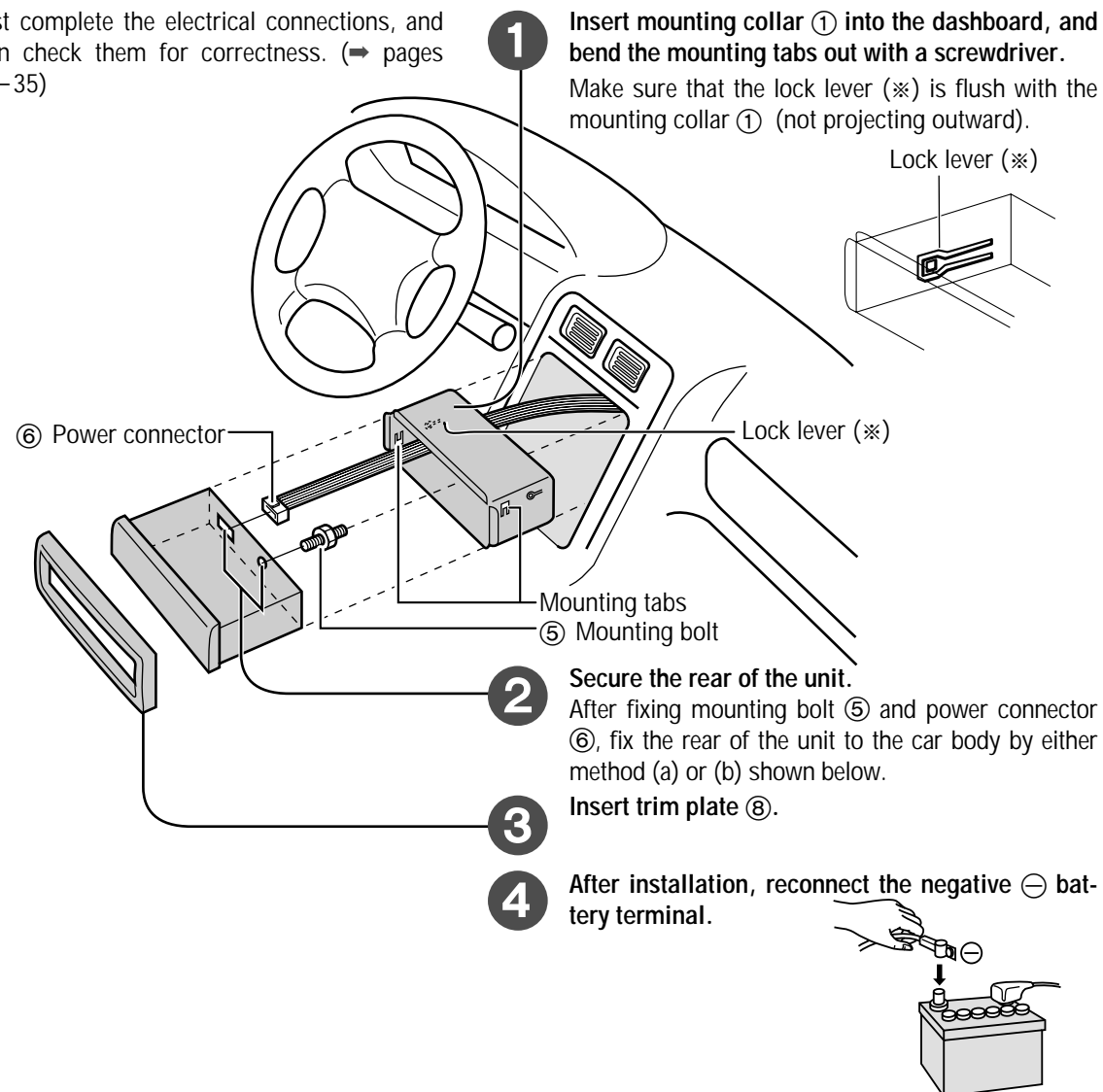
### Installation Opening



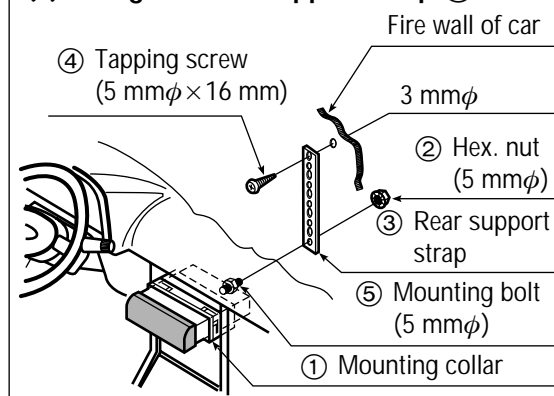
This unit can be installed in any dashboard having an opening as shown above. The dashboard should be 4.75 mm–5.56 mm thick in order to be able to support the unit.

## Installation Procedures

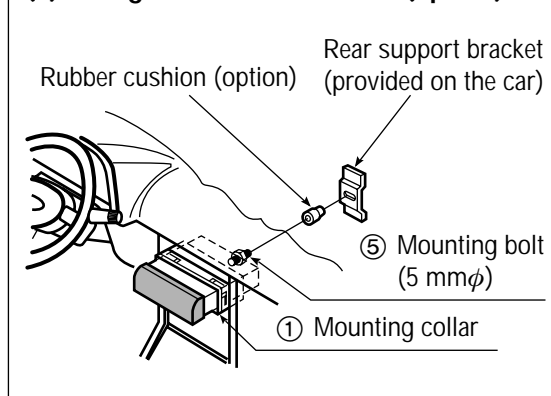
First complete the electrical connections, and then check them for correctness. (→ pages 34–35)



### (a) Using the rear support strap ③



### (b) Using the rubber cushion (option)

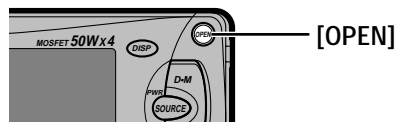


# Installation Guide (Continued)

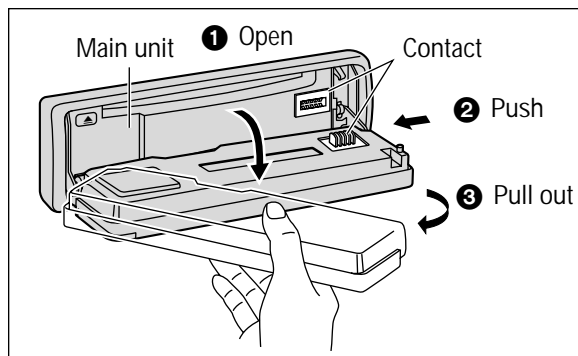
## Remove the Unit

Switch off the power of the unit.

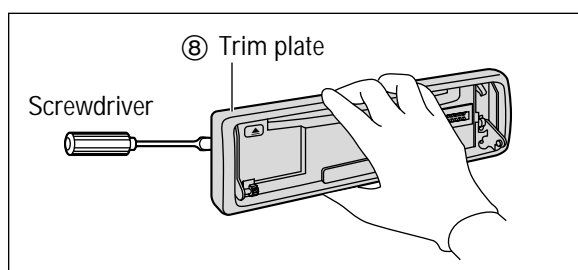
- 1 Remove the removable face plate.
  - 1 Press [OPEN]. The removable face plate will be opened.



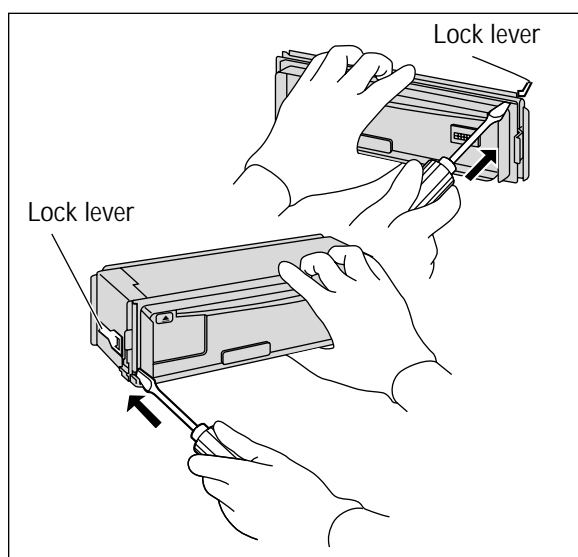
- 2 Push the face plate to the left.
- 3 Pull it out toward you.



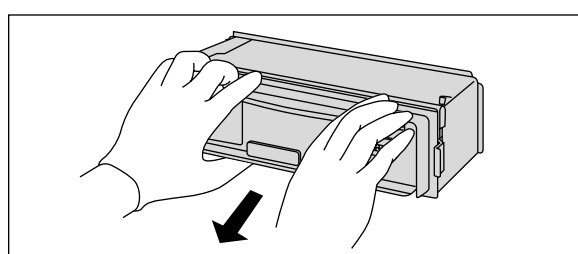
- 2 Remove the trim plate ⑧ with a screwdriver.



- 3 Pull out the unit while pushing down the lock lever with a screwdriver.



- 4 Remove the unit pulling with both hands.

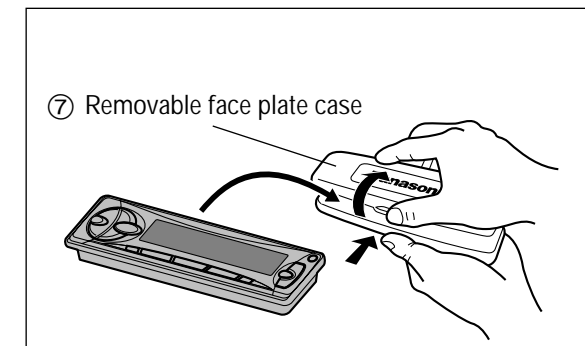


# Anti-Theft System

This unit is equipped with a removable face plate. Removing this face plate makes the radio totally inoperable. The security indicator will blink.

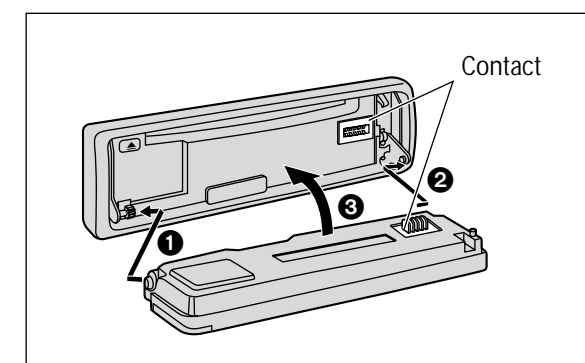
## Place the Removable Face Plate into Case

- 1 Switch off the power of the unit.
- 2 Remove the removable face plate. (→ page 32)
- 3 Gently press the button of the case and open the cover. Place the face plate into the case and take it with you when you leave the car.



## Install Removable Face Plate

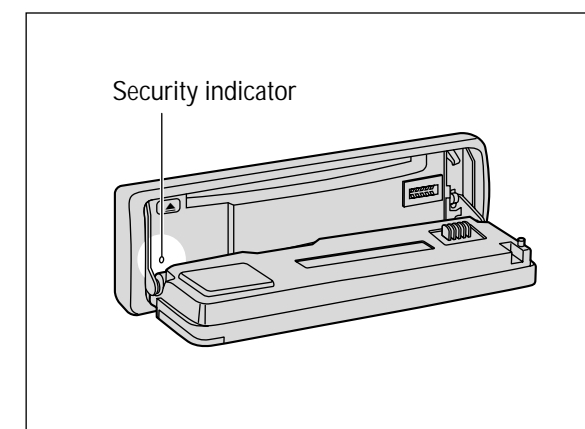
- 1 Fit the face plate with its left hole on one of the pins provided on the main unit.
- 2 Fit the other hold on the other pin applying slight pressure.
- 3 Move the face plate up and down a few times to make sure it is secure. Then close the front panel and press down the right side of the face plate until it clicks into place.



## Security Indicator

The security indicator blinks when the removable face plate is removed from the unit.

Active the security function in the function menu display. (→ page 26)



## Panel Removal Alarm

This alarm sounds to warn you not to forget to remove the panel before leaving your car. This function is activated when the security indicator is on.

### Cautions:

- This face plate is not water-proof. Do not expose it to water or excessive moisture.
- Do not remove the face plate while driving your car.
- Do not place the face plate on the dashboard or nearby areas where the temperature rises to high level.
- Do not touch the contacts on the face plate or on the main unit, since this may result in poor electrical contacts.
- If dirt or other foreign substances get on the contacts, wipe them off with a clean and dry cloth.
- To avoid damaging the front panel, do not push it down or place objects on it while it is open.

# Electrical Connections

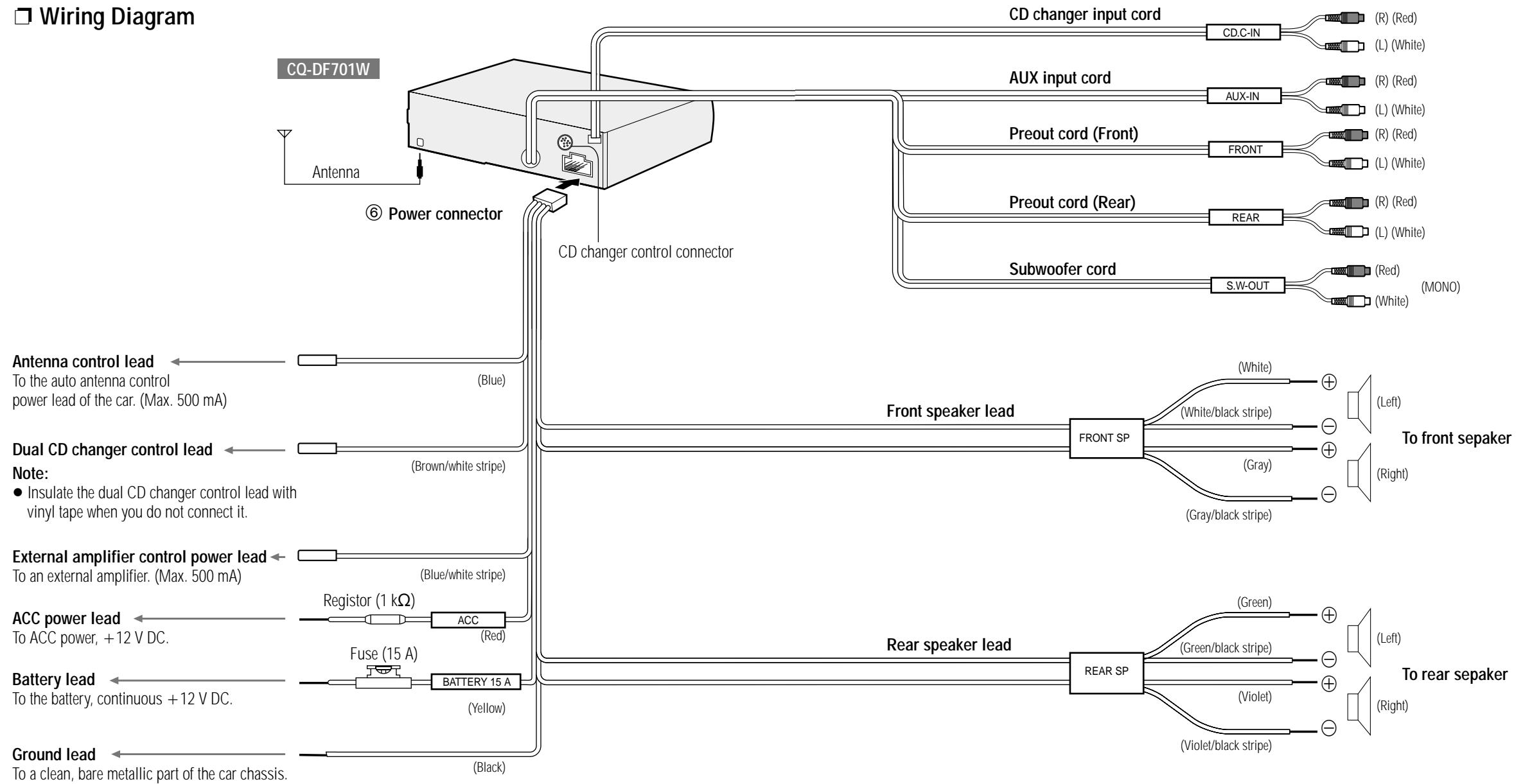
**Cautions:**

- This product is designed to operate of a 12 V DC, negative ground battery system.
- To prevent damage to the unit, be sure to follow the connection diagram below.
- Remove approx. 5 mm of protective covering from the ends of the leads before connecting.
- Do not insert the power connector into the unit until the wiring is completed.
- Be sure to insulate any exposed wires from a possible short-circuit from the car chassis. Bundle all cables and keep cable terminals free from touching any metal parts.
- Remember, if your car has a drive computer or a navigation computer, the data of its memory may be erased when the battery terminals are disconnected.
- All other installation methods require the use of dedicated metal fittings. Consult with a qualified servicing engineer or your dealer if other method are required.

Accessory used for wiring

No.	Item	Q'ty
⑥	Power connector	1

□ Wiring Diagram



# Electrical Connections (Continued)

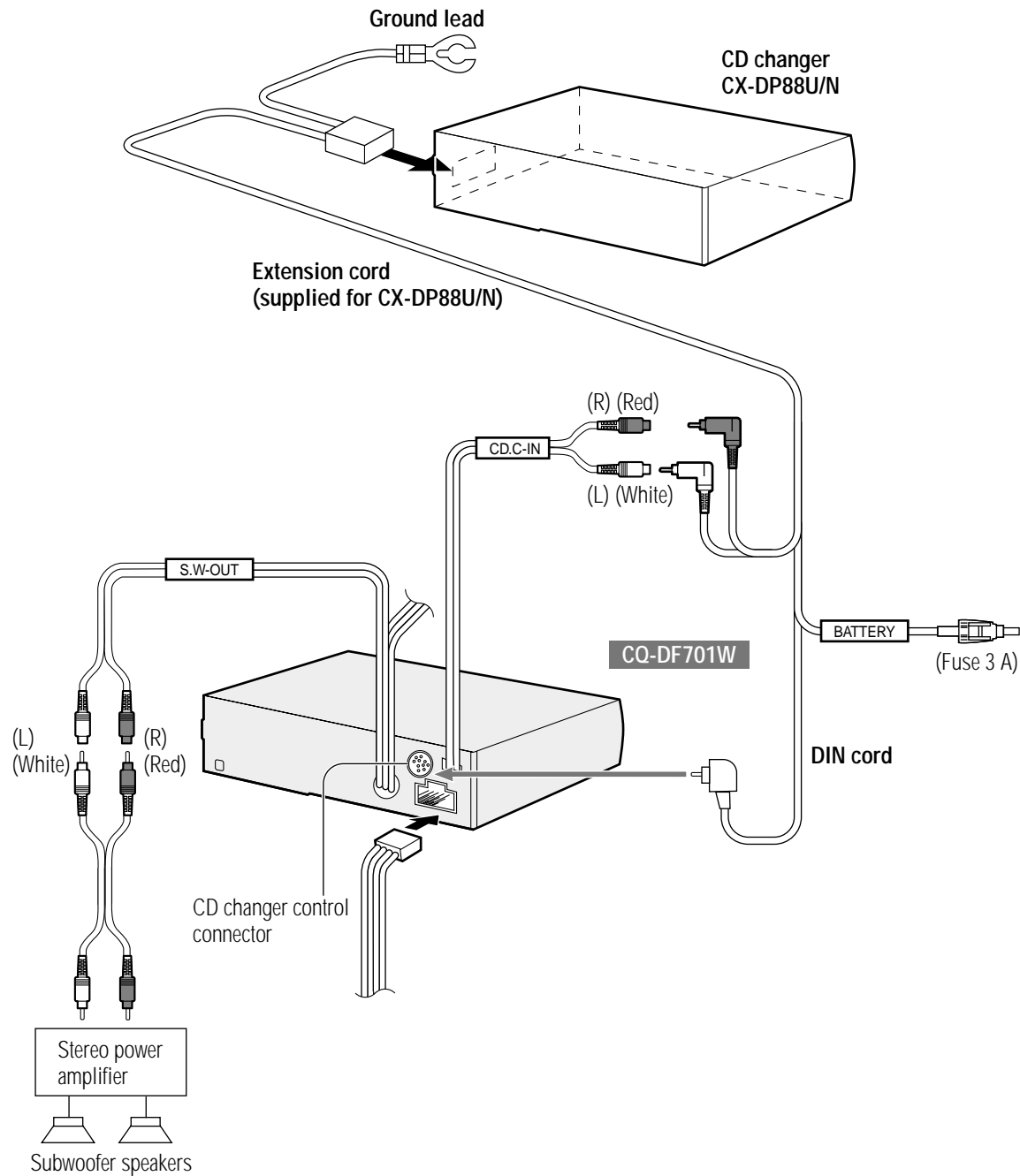
## Upgrading the System

### Example Combination

- CD changer (CX-DP88U/N)
- Stereo power amplifier

### Note:

- For wiring, carefully read the operating instructions for the devices connected.



# Troubleshooting

## Preliminary Steps

Check and take steps as described in the tables below.

## If You Suspect Something Wrong

Immediately switch power off.

Disconnect the power connector and check that there is neither smoke nor heat from the unit before asking for repairs. Never try to repair the unit yourself because it is dangerous to do so.

### Cautions:

- Do not use the unit if it malfunctions or is something wrong.
- Do not use the unit in abnormal condition, for example, without sound, or with smoke or foul smell, can cause ignition or electric shock. Immediately stop using it and call the store where you purchased it.

## Troubleshooting Tips

### Common

Trouble	Cause/Step
No power.	Car's engine switch is not on. → Turn your car's ignition switch to ACC or ON.
	Cables are not correctly connected. → Connect cables correctly.
	Battery cable is not correctly connected. → Connect the battery cable to the terminal that is always live.
	Accessory cable is not correctly connected. → Connect the accessory cable to your car's ACC source.
	Grounding wire is not correctly connected. → Connect the grounding wire to a metal part of the car.
No sound.	Fuse is burnt. → Call the store where you purchased the unit, or your nearest service station and ask for fuse replacement.
	Mute is set to ON. → Set it to OFF.
	Cables are not correctly connected. → Connect cables correctly.
Only sound, no display.	Condensation (dew) → Wait for a while before use.
	The display shows "display and light off". → Press [DISP] to change the display.
Noise.	A mobile phone is used near the unit. → Keep the mobile phone away from the unit.
	Demonstration mode is ON. → Press [DISP] to cancel demonstration mode.
Buttons unusable. Audio sound is not matched on the mode display.	



# Troubleshooting (Continued)

## ☐ Radio

Trouble	Cause/Step
Much noise in FM stereo and monaural broadcasts.	Station is too far, or signals are too weak. ⇒ <b>Select other stations of higher signal level.</b>
	The radio antenna is not extended enough. ⇒ <b>Set the radio antenna enough.</b>
Preset station is reset.	Battery cable is not correctly connected. ⇒ <b>Connect the battery cable to the terminal that is always live.</b>

## ☐ CD

Trouble	Cause/Step
CD is in the CD compartment but no sound is made, or CD is ejected automatically.	CD is upside down. ⇒ <b>Place CD in the correct direction, and the label side up.</b>
	CD is dirty. ⇒ <b>Clean CD, referring to the section on "Notes on CD".</b>
	8 cm disc is ejected automatically.
CD sound skips, tone quality is low.	CD is dirty. ⇒ <b>Clean CD, referring to the section on "Notes on CD".</b>
Sound skips due to vibration.	Mounting angle is over 30°. ⇒ <b>Adjust mounting angle to less than 30°.</b>
	Instable mounting. ⇒ <b>Mount the unit securely with the mounting parts, referring to the section on installation.</b>
CD is not ejected.	<ul style="list-style-type: none"> <li>• CD is defective.</li> <li>• Mechanical trouble.</li> </ul> ⇒ <b>Press [OPEN] to open the panel and press [▲] (EJECT). If normal operation is not restored yet, call the store where you purchased the unit or the nearest service station to ask for repairs.</b>

## ☐ Sound Setting

Trouble	Cause/Step
No sound from left, right, front or rear speakers.	Left and right balance, or front and rear balance is off on one side. ⇒ <b>Adjust BAL/FAD mode as appropriate.</b>
	Cables are not correctly connected. ⇒ <b>Connect the cables correctly.</b>
Left and right sounds are reversed in stereo listening.	The right speaker wire is connected to the left speaker and the left speaker wire to the right speaker. ⇒ <b>Connect the speaker wires to the correct ones.</b>

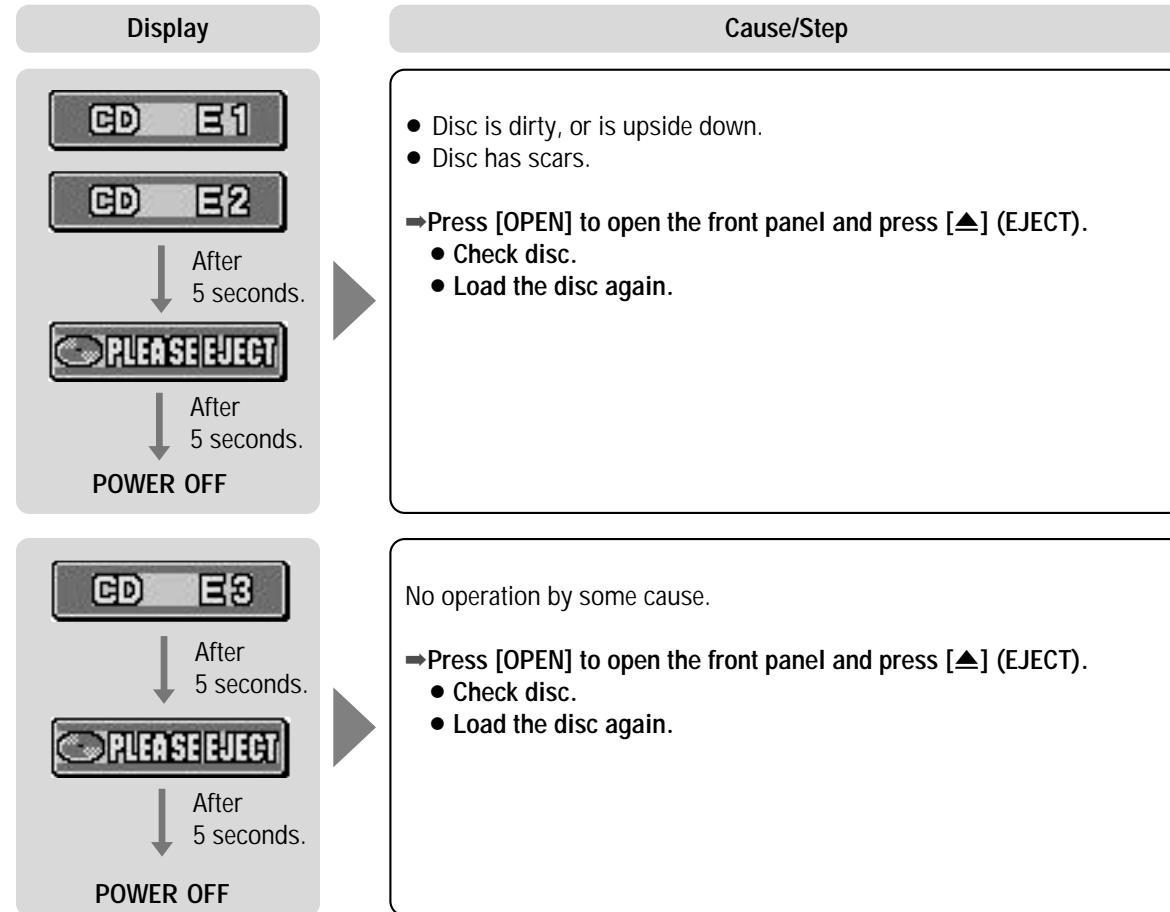
## ☐ Remote Control

Trouble	Cause/Step
Buttons are invalid for operation.	Battery poles (+) (–) are reversed. ⇒ <b>Insert the battery correctly.</b>
	Wrong the battery. ⇒ <b>Check the battery.</b>
	The battery has run down. ⇒ <b>Replace the battery.</b>
	Remote control is in the wrong direction. ⇒ <b>Direct the remote control at sensor (REMOTE) on the panel.</b>

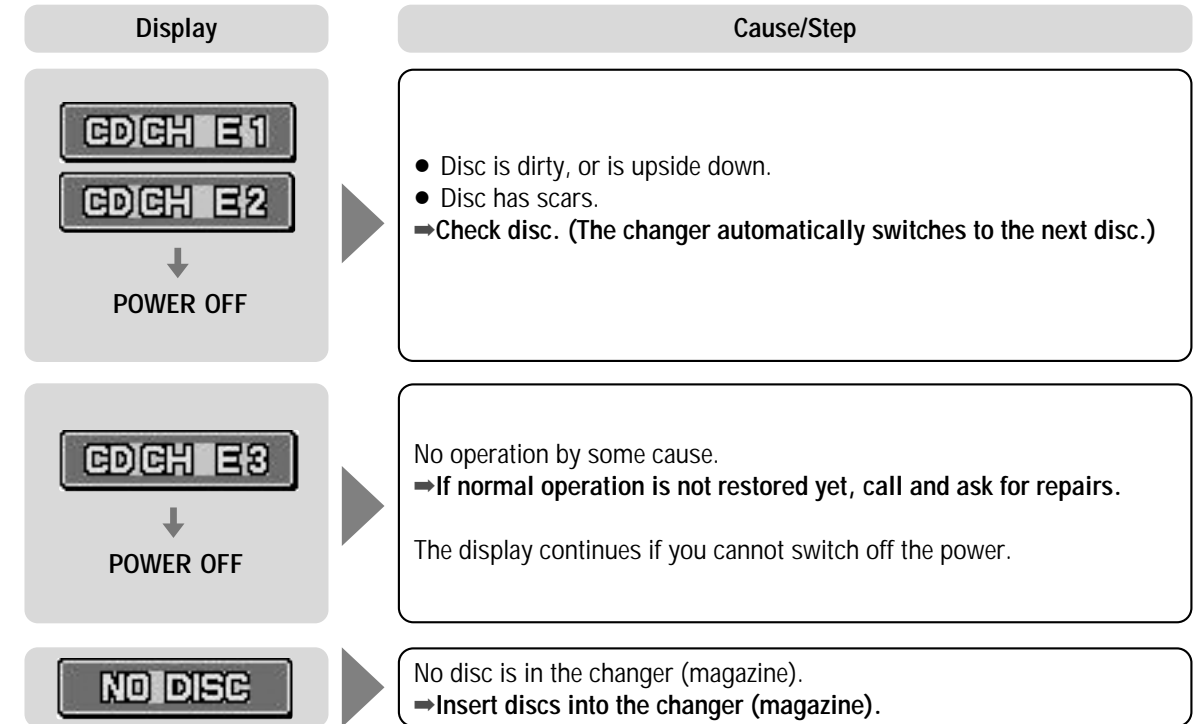
# Troubleshooting (Continued)

## Error Display Messages

### CD



### CD Changer



**Note:**

- For details, refer to operating instructions for the changer used.

## Maintenance

Your product is designed and manufactured to ensure a minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzene, thinner or other solvents.

## Product Servicing

If the suggestions in the charts do not solve the problem, we recommend that you take it to your nearest authorized Panasonic Servicenter. The product should be serviced only by a qualified technician.

## Replacing the Fuse

Use fuses of the same specified rating (15 A). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the stereo unit.

**If the replacement fuse fails, contact your nearest Panasonic Servicenter for service.**

# Maintenance

## Care of the Unit

### ☐ Cleaning this Unit

Use a dry, soft cloth to wipe.

### ☐ Caution on Cleaning

Never use solvents such as benzine, thinner as they may mar the surface of the unit.

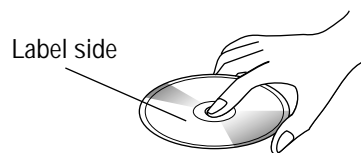
### Notes on CD

ONLY USE DISCS CARRYING THE LABEL

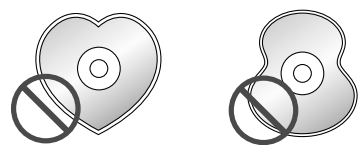


### How to hold the CD

- Do not touch the underside of the disc.
- Do not make scratches on the discs.
- Do not bend disc.
- When not in use, keep CD in the case.



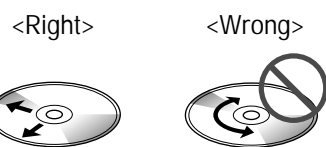
### Do not use irregular shaped CDs.



Do not use irregular shaped CDs.

### Do not leave discs on the following places:

- Direct sunlight
- Near car heaters
- Dirty, dusty and damp areas
- Seats and dashboards

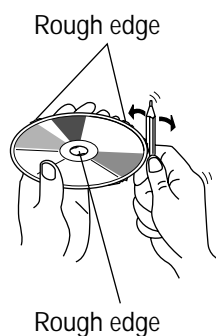


### Disc cleaning

Use a dry, soft cloth to wipe from the center outward.

### Caution on new discs

A new disc may have rough edges on its inner and outer perimeter. These may cause malfunction. Remove the rough edges using a pencil, etc.



# Specifications

### ☐ General

Power supply:	12 V DC (11 V–16 V), test voltage 14.4 V, negative ground
Current consumption:	Less than 2.2 A (CD play mode; 0.5 W×4 channels)
Maximum power output:	50 W×4 channels at 1 kHz, Volume control maximum
Tone adjustment range:	
Bass:	±12 dB at 100 Hz
Treble:	±12 dB at 10 kHz
Suitable speaker impedance:	4–8 Ω
Pre-Amp output voltage:	5.0 V (CD play mode; 1 kHz, 0 dB)
Subwoofer output voltage:	5.0 V
Pre-Amp output impedance:	60 Ω
Subwoofer output impedance:	60 Ω
Dimensions (W×H×D):	178×50×150 mm
Weight:	1.6 kg

### ☐ FM Stereo Radio

Frequency range:	87.50 MHz–108.00 MHz
Usable sensitivity:	11.0 dBf. (1.25 μV, 75 Ω)
50 dB quieting sensitivity:	15.2 dBf. (1.6 μV, 75 Ω)
Frequency response:	30 Hz–15 kHz (±3 dB)
Alternate channel selectivity:	75 dB
Stereo separation:	35 dB (1 kHz)
Image response ratio:	75 dB
IF response ratio:	100 dB
Signal/noise ratio:	70 dB

### ☐ AM Radio

Frequency range:	531 kHz–1 602 kHz
Usable sensitivity:	28 dB/μV (25 μV, S/N 20 dB)

### ☐ CD Player

Sampling frequency:	8 times oversampling
DA converter:	MASH • 1 bit/4 DAC system
Error correction system:	Panasonic super decoding algorithm
Pick-up type:	Astigma 3-beam
Light source:	Semiconductor laser
Wave length:	780 nm
Frequency response:	20 Hz–20 kHz (±1 dB)
Signal/noise ratio:	96 dB
Total harmonic distortion:	0.01 % (1 kHz)
Wow and flutter:	Below measurable limits
Channel separation:	75 dB

### Note:

- Specifications and the design are subject to modification without notice due to improvements in technology.